**Problem Solving Model**

**Understand the Problem**

**Make a Plan**

**Carry Out the Plan**

**Look Back at the Solution**

*(2005, The Ontario Curriculum – Mathematics, Grades 1-8)*

**4.POST-ASSESSMENT TASK.**What will students be able to do that will demonstrate their skills and knowledge at the end of the pathway?

**3. CURRICULUM EXPECTATIONS**

List curriculum expectations related to the area of greatest need. Cluster these expectations to address student needs

**2. GREATEST AREA OF NEED**

What does our evidence of student achievement tell us?

**1. PRE-ASSESSMENT TASK**

What task will we use to gather evidence of what student s currently know and understand about this topic/concept?

**Numeracy TLCP – PBL Process Organizer** Grade: \_\_\_\_\_ Teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Consolidation (After Instruction) Strategies

Reserve our comments for strategic moments

Check for understanding

Prevent or correct any misconceptions

Assess students to plan for next instruction

Independent Activities for consolidation:

Math games journal writing mind map creation solving different problems practicing a related skill homework

Action (During Instruction)

Prompts for student engagement & teachers assessment:

How do you know? What evidence can you give?

What connection do you see between…? Is this always true?

Show me another way. Do you see a pattern?

Explain your partner's thinking gin your words.

What do you think would happen if…?

How would a picture, diagram clarify your explanation?

Minds On to Engage(Before Instruction)

* A short, engaging brain teaser
* A quotation, film clip, newspaper article or story to launch the problem
* Establish a scenario & ask students to make predictions
* Brainstorming, placemat, inside/outside circles, think/pair/share, anticipation guide, value line, four corners
* Mental math and have students share strategies/though processes

**Mathematical Processes**

* **Problem-solving**
* **Reflecting**
* **Connecting**
* **Representing**
* **Reasoning & Proving**
* **Communicating**
* **Selecting Tools & Strategies**

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| --- | --- | --- | --- | --- | --- |
| **Problem Based Learning Process Planner** *(Sources: http://pbln.imsa.edu/, http://www4.nau.edu/eeop/aqcp/pbl\_process.asp)* | | | | | |
| LESSON 1 | | | LESSON 2 | | |
| Minds On | Action | Consolidation | Minds On | Action | Consolidation |
|  |  |  |  |  |  |
| LESSON 3 | | | LESSON 4 | | |
| Minds On | Action | Consolidation | Minds On | Action | Consolidation |
|  |  |  |  |  |  |

Timeline

Cycle Start Date:

Cycle End Date:

Summative Task Date: